M. Bradner

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FOREST SURVEY RELEASE NO. 10 A JANUARY 1938 PROGRESS REPORT

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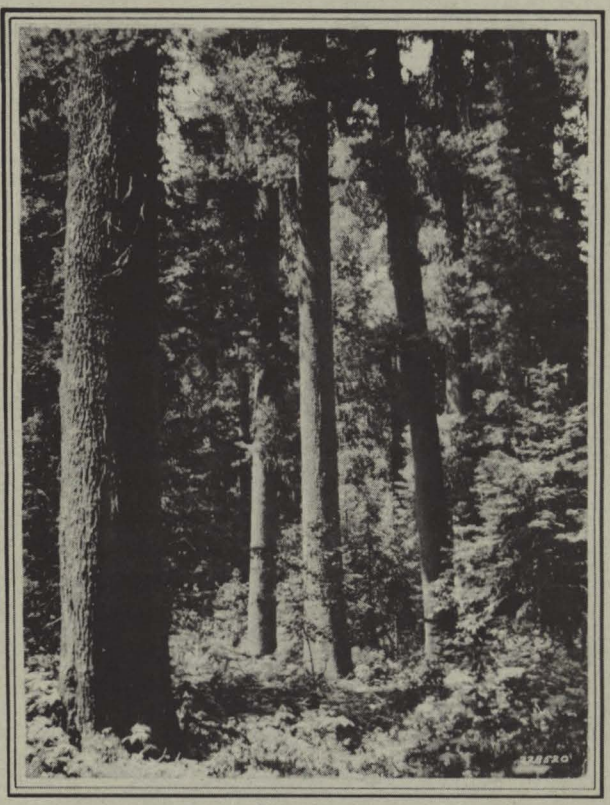
no. 10

FOREST STATISTICS
LATAH COUNTY, IDAHO

FROM THE INVENTORY PHASE OF THE FOREST SURVEY



U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

NORTHERN ROCKY MOUNTAIN
FOREST AND RANGE EXPERIMENT STATION

STEPHEN N. WYCKOFF DIRECTOR
MISSOULA MONTANA

BY FOREST SURVEY STAFF M. BRADNER REGIONAL DIRECTOR

FOREST STATISTICS FOR LATAH COUNTY, IDAHO

From the Inventory Phase of the Forest Survey

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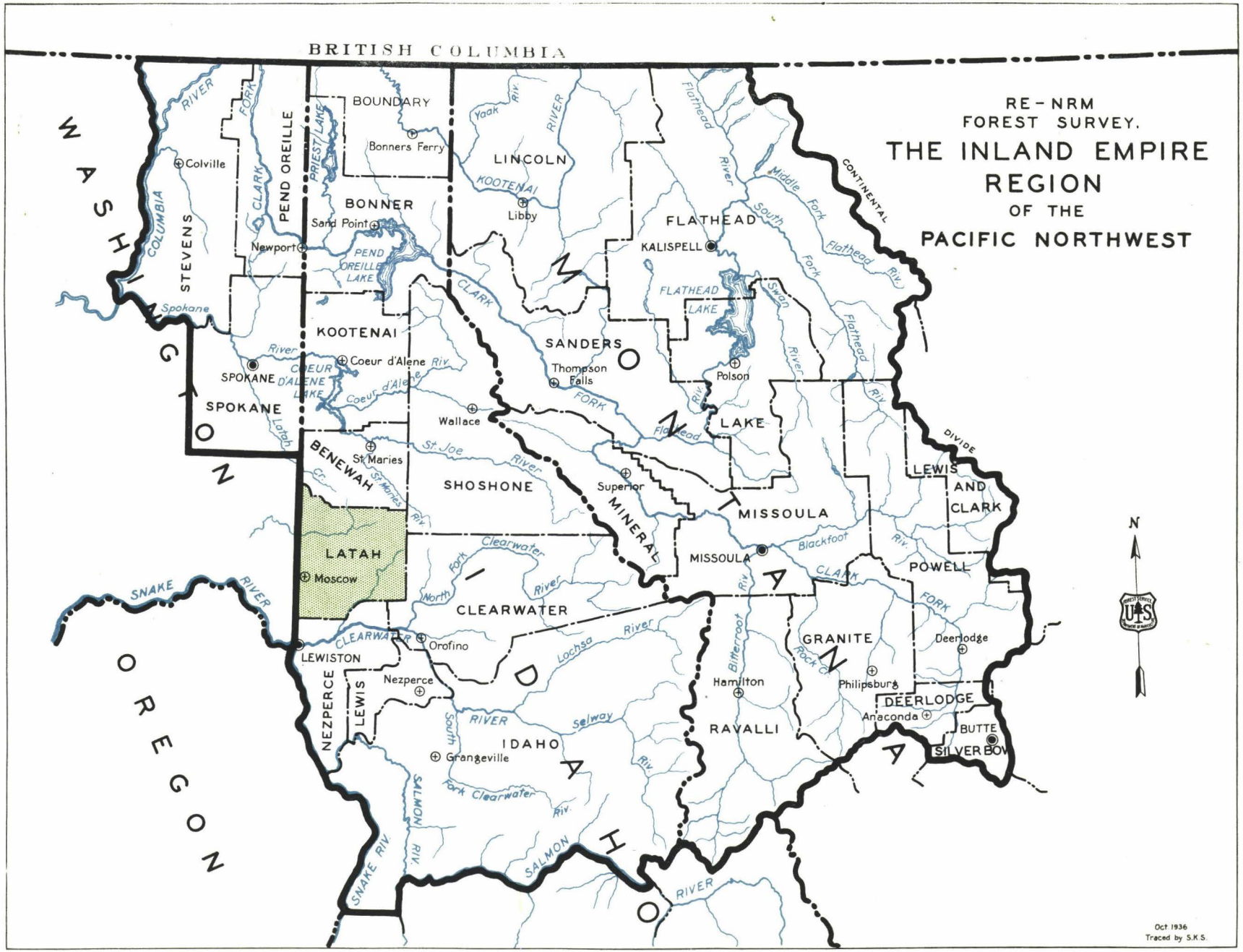

BRITISH COLUMBIA
RE-NRM
FOREST SURVEY.
THE INLAND EMPIRE
REGION
OF THE
PACIFIC NORTHWEST
WASHINGTON
IDAHO
MONTANA
OREGON
BOUNDARY
Bonners Ferry
LINCOLN
Libby
BONNER
Sand Point
Newport
PEND OREILLE
Colville
STEVENS
KOOTENAI
Coeur d'Alene
SPOKANE
SPOKANE
BENEWAH
St Maries
LATAH
Moscow
LEWISTON
NEZPERCE
LEWIS
Nezperce
Orofino
CLEARWATER
Grangeville
IDAHO
SHOSHONE
Wallace
SANDERS
Thompson Falls
FLATHEAD
KALISPELL
Polson
LAKE
Superior
MINERAL
MISSOULA
MISSOULA
RAVALLI
Hamilton
GRANITE
Philipsburg
Deerlodge
DEERLODGE
Anaconda
BUTTE
SILVER BOW
POWELL
LEWIS AND CLARK
CONTINENTAL DIVIDE
Flathead River
Middle Fork Flathead River
South Fork Flathead River
Swan River
FLATHEAD LAKE
PEND OREILLE LAKE
COEUR D'ALENE LAKE
Yaak River
KOOTENAI River
CLARK FORK
PRIEST LAKE
COLUMBIA River
Spokane River
Coeur d'Alene River
St. Joe River
St. Maries River
Clearwater River
North Fork Clearwater River
South Fork Clearwater River
Lochsa River
Selway River
Bitterroot River
Blackfoot River
Rock Cr.
SNAKE RIVER
SALMON RIVER
SNAKE RIV
N
Oct 1936
Traced by S.K.S.

RE-NRM
FOREST SURVEY

LATAH COUNTY

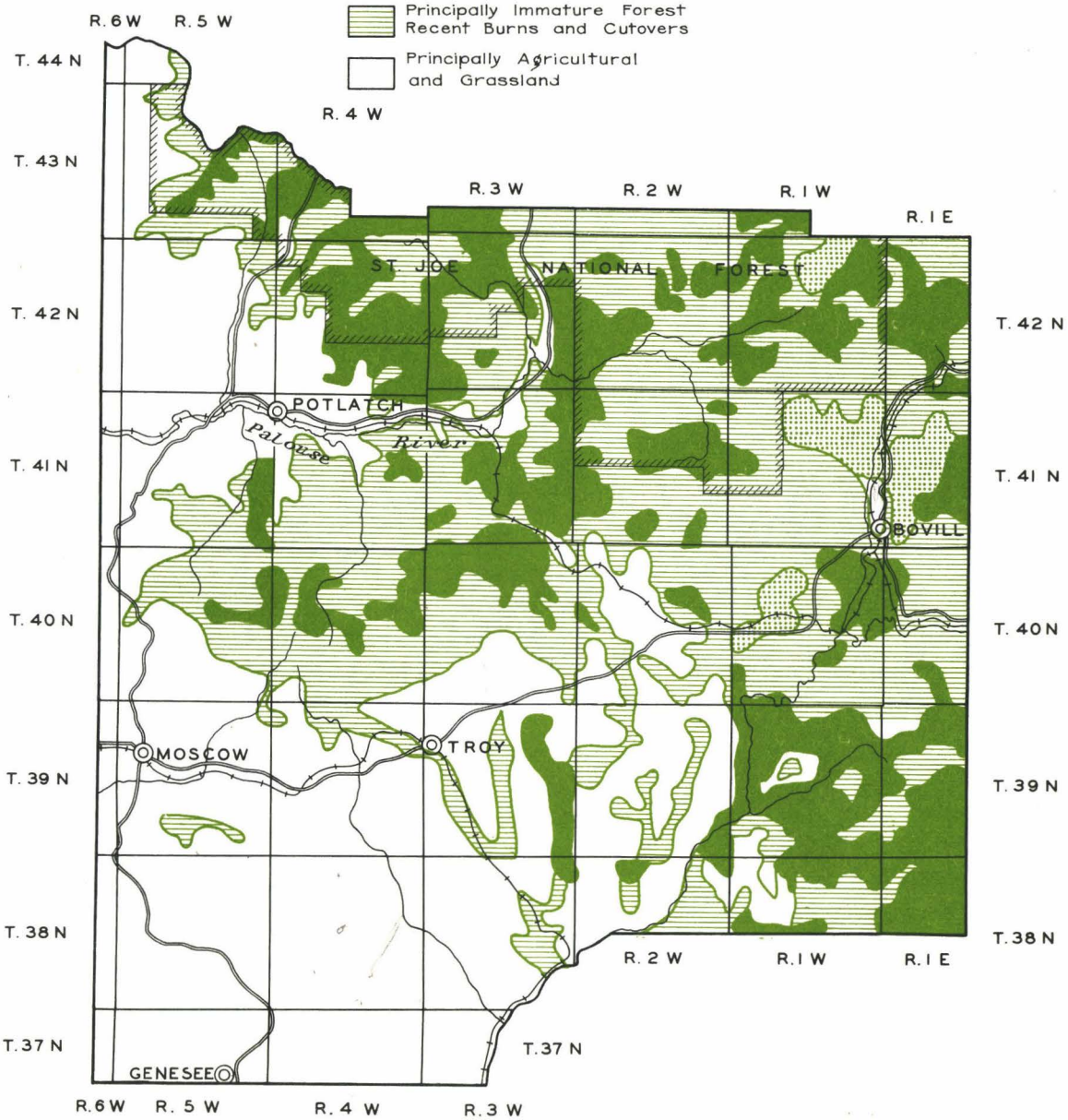
IDAHO
1934

Scale

½ 0 1 2 3 4 5 Miles

SHOWING GENERAL TYPES

- Principally Merchantable Timber
- Principally Non-Restocked old Burns and Cutovers
- Principally Immature Forest Recent Burns and Cutovers
- Principally Agricultural and Grassland



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Feb., 1937

RE-NRM
Forest Survey

FOREST STATISTICS FOR LATAH COUNTY, IDAHO

Foreword

Latah County, Idaho, has two primary sources of wealth--its farms and forests. Founded upon these are two major industries which have, for many years, furnished the bulk of the income for the residents of the county and which have made this one of the more prosperous sections of north Idaho. Upon the farms and forests, likewise, is based the degree of economic security and stability which Latah County may hope to enjoy in the future.

The problem of obtaining a sustained income from the forest resources becomes an increasingly important one as the virgin areas grow less. Many forest agencies are endeavoring to surmount the complex array of financial, economic, social and technical problems standing in the path of a stabilized lumber production. The success of these efforts will determine to a large extent the course of the lumber industry and, in turn, the course of Latah County in the coming years. The Forest Survey has been established with the primary purpose of furthering these aims of forest management. This is the eighth in a series of county statistical reports summarizing an inventory of the forest resources for the Northern Rocky Mountain Region.1/

1/ The three northeastern Washington counties, Idaho north of the Salmon River, and Montana.

GENERAL CLASSIFICATION OF LAND
LATAH COUNTY, IDAHO

Figure 1.

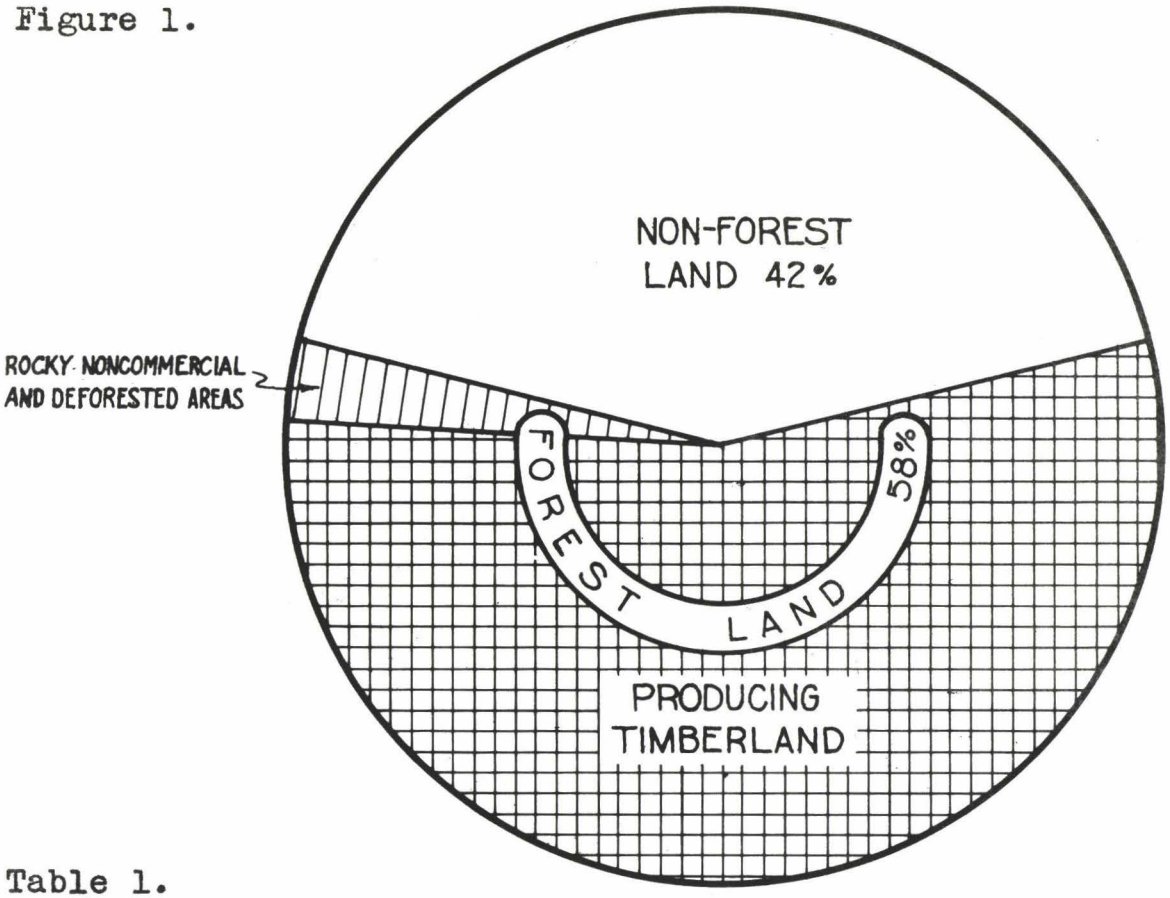


Table 1.

	Area in Acres
NONFOREST LAND	
Townsites	2,588
Cultivated and Stump Pasture	280,404
Grassland	11,770
Brush	595
Barren	25
Total	295,382
FOREST LAND	
Timberland	
Producing	382,331
Deforested	17,814
Total	400,145
Rocky Noncommercial	275
Total Forest Land	400,420
GROSS LAND AREA	695,802

General

Lying along the western edge of the forest belt in the Inland Empire, Latah County is only 58 percent forested (figure 1), the remainder of the area being for the most part agricultural. The larger part of the farm land is in the famous Palouse prairie, although a considerable acreage has been cleared from cutover lands. The topography of this county varies from the rolling farm lands to the low hills and mountains of the forested portion. The principal drainage is afforded by the Palouse River and Potlatch Creek, tributaries of the Snake and Clearwater Rivers, respectively.

The population of the county dropped approximately 300 from 18,092 in 1920 to 17,798 in 1930. The population of Moscow, the county seat, was 4,476 in the latter year. The communities of Potlatch and Troy rank next in size with populations of 1500 and 619 persons, respectively.

Transportation facilities include several good highways and the five following railroads: The Union Pacific Railway; Northern Pacific Railway; Chicago Milwaukee St.Paul and Pacific Railroad; Spokane, Coeur d'Alene and Palouse Railroad; Washington, Idaho and Montana Railroad.

The county map in the front of this bulletin shows the general types at the time of mapping in 1934. Depletion by cutting in the sawlog stands represents the single important change in these data, there being approximately 15 thousand acres actually logged since the type mapping. However, as the cutting during this period has been principally confined to white pine and cedar poles, the residual stands are for the most part still classed as sawlog, being composed of secondary species. Thus the general types shown on this map are essentially unchanged as of January 1938.

History of Forest Exploitation

The history of Latah County's lumber industry begins shortly after the first influx of settlers into the Paradise Valley region around Moscow in 1871. Five years later, in 1876, a small sawmill was constructed by Stewart and Beach six miles northeast of the site of Moscow. This first sawmill was operated only a few months before it was purchased and moved to Colfax, Washington. The following year, however, saw the establishment by R. H. Barton of another mill which had been transported from Utah by ox team; and during the next several decades the lumber industry advanced with the expansion of agriculture, a number of small mills soon being scattered through this area busily producing lumber, principally ponderosa pine, for local use. These small lumber plants have played a major role in the development of Latah County, the number in operation varying considerably from year to year in response to a changing market. There were 21 such concerns in 1936 whereas the earliest available record shows 13 in 1910.

Despite their number, these mills have been dwarfed by the single large lumber manufacturing plant in the county. This sawmill owned by the Potlatch Lumber Company (later part of Potlatch Forests Inc.) has, since its construction, produced something over 90 percent of the lumber sawed in this area, and furnished a correspondingly high proportion of the employment in forest industry. The construction of the

mill and the community of Potlatch began in 1904, the lumber for this purpose being obtained from the company's mill at Palouse, Washington. In September, 1906, this plant, then the largest white pine mill in the world, cut the first few thousand feet of a lumber production which has in 30 years (including 1936) aggregated approximately 2.64 billion board feet lumber tally with an average cut of nearly 88 million feet per year.

The total production of lumber in the county has varied considerably through the years in response to markets. In 1910 approximately 135 million board feet of lumber were sawed locally. The highest production was 138 million board feet lumber tally in 1925. The lumber cut dropped to 2.6 million feet in 1932 when for the first year in its history the Potlatch mill lay idle. The total lumber production has since risen to 93 million feet in 1935 and 85 million feet in 1936.

Inasmuch as logging operations have not followed county lines, log production and lumber production in Latah County have varied more or less independently. Statistics for log production by counties are available only for the period since 1924. From 1925 to 1936 inclusive, 15 percent of the timber logged in Latah County has been exported to other counties for manufacture, but on the other hand 17 percent of the lumber sawed locally has been from logs imported into the county. In the past few years the volume of exported

logs has fallen off, whereas the volume of logs imported from Clearwater County has increased considerably. The highest recorded log production for this period in the county was 159 million board feet lumber tally in 1925. In 1933, when but 6.5 million feet were cut, the sawlog production was at its lowest in almost 30 years. From this figure the log cut rose to 64 million board feet in 1936.

The cedar pole and piling industry has been an important adjunct to the logging activities of Latah County. It is estimated that over 600,000 poles and piling of this species have been removed from the county since the earliest logging days. Declining to insignificant size during the depression, the pole and piling industry has since revived to considerable proportions.

Present Stands

Latah County lies in two distinct timber belts. Roughly, the eastern half of the forest area in this county is predominantly white pine, and the western half, bordering the farm lands, is principally ponderosa pine.

Approximately 37 percent of the producing timberland, which includes sawlog, pole, seedling and sapling stands, and recent burns and cutovers, is white pine type (table 2). Another 37 percent is ponderosa pine and 22 percent is larch-Douglas fir. Due to the fact, however, that the white pine areas have borne the brunt of the logging in recent years, the ratios of types in sawlog stands are decidedly different.

Of the sawlog area in the county, totaling 128,416 acres, 42 percent is ponderosa pine type, 30 percent larch-Douglas fir and only 20 percent white pine. The sawlog acreage in the secondary types is constantly increasing as the white pine and cedar poles are being cut, leaving sawtimber stands composed of other species.

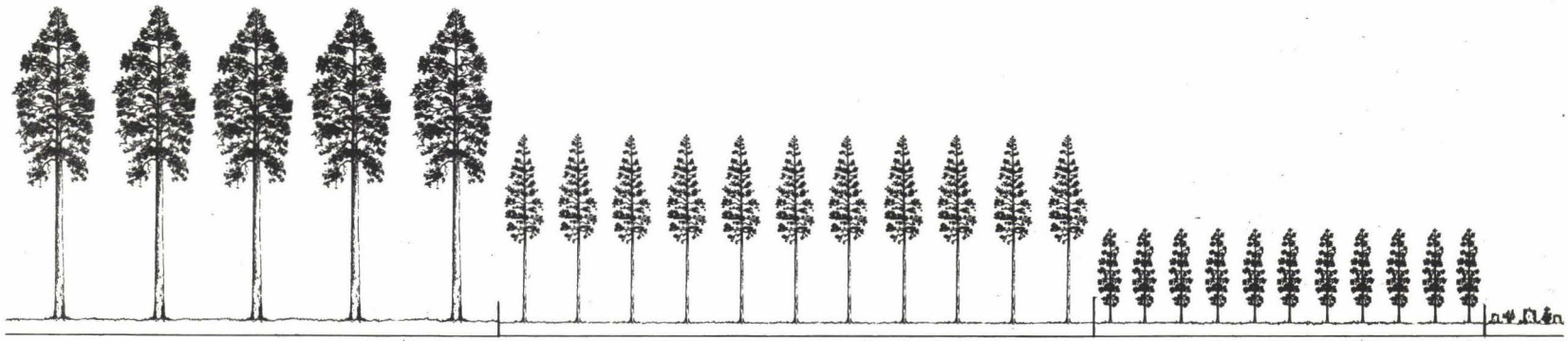
The Forest Survey has mapped a total area of 154,088 acres as pole stands with trees ranging from six inches in diameter to merchantable size. There are 77,690 acres of seedling and sapling stands, and 22,137 acres of recent burns and cutovers. The latter class includes areas in an indefinite status following recent logging or fire. Also included as timberland, but unlikely to reforest in the near future, are the 17,814 acres classed as nonrestocked old burns and cut-over areas, deforested prior to 1925.

Of the ten north Idaho counties, Latah County has the least area which may be classed as noncommercial from a timber utilization standpoint. Only 752 acres of the timberland itemized above are in the economically inaccessible (zone 3) area. There are no subalpine stands in the county sufficiently large to be mapped and only 275 acres are so rocky as to be noncommercial. Except for the 752 acres of zone three timberland, the timber stands of Latah County are all classified as zone one or immediately accessible from an economic standpoint, there being no zone two forest land in Latah County.2/

2/ See Glossary for Definition of zones.

Fig. 2

CHARACTER OF TIMBERLAND COVER IN ZONE ONE° — LATAH COUNTY, IDAHO
399,393 ACRES



SAWLOG STANDS*
128,351 Acres

POLE STANDS
153,401 Acres

SEEDLING AND SAPLING STANDS**
99,827 Acres

DEFORESTED
17,814 Acres

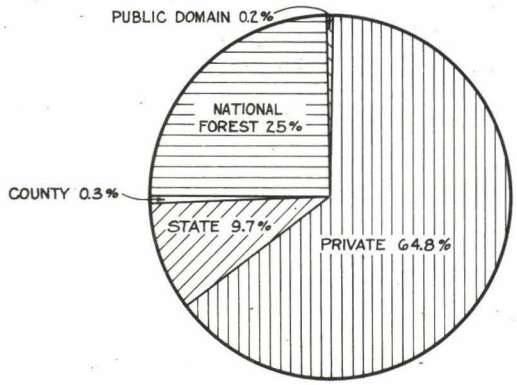
* Including Merchantable Cedar-White Fir Pole Stands.

** Including Recent Burns and Cutovers.

Fig. 3

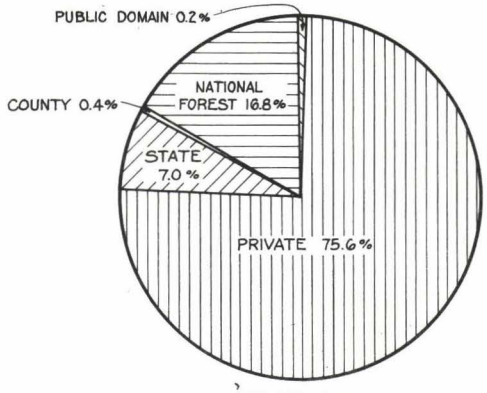
OWNERSHIP OF FOREST LAND AND TIMBER — LATAH COUNTY, IDAHO

ALL FOREST LAND



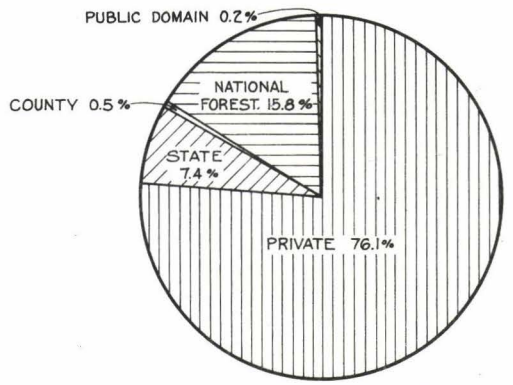
400,420 Acres

SAWLOG STANDS - ZONE ONE°



128,351 Acres

VOLUME IN SAWLOG STANDS - ZONE ONE°



1,272,213,000 Board Feet

° NO ZONE TWO FOREST LAND IN LATAH COUNTY - FOR DEFINITION OF ZONES SEE GLOSSARY

Timber Volumes

It is estimated by the Forest Survey that the saw-log stands of Latah County have a total merchantable volume of 1,273 million board feet log scale (tables 3, 4 and 5). A considerable portion of this volume is contained in trees of secondary species and for the present, at least, has no great commercial worth. The more or less complete utilization of all species in the past has given way in recent years to a policy of logging principally white pine. In 1911 the lumber sawed in north Idaho was 41 percent white pine, 28 percent ponderosa pine and 31 percent other species. These figures are representative of the situation up to 1926 from which time the percentage of white pine has increased greatly at the expense of the other species. In 1936 the lumber production of the north Idaho mills was 76 percent white pine, 11 percent ponderosa pine, and 13 percent other species. Although this situation is due, in part, to the general depression of the past few years, there has been a definite trend, apart from that caused by nationwide economic conditions, toward concentration upon white pine.

The following comparison is made between the 1935-1936 log production in Latah County and the present inventory of the accessible sawtimber in this county.

Latah County

Species	Average Log production 1935-1936		Volume of Zone One sawlog stands 1938	
	Volume Board feet log scale	%	Volume board feet log scale	%
White pine	36,250,000	80	197,808,000	16
Ponderosa pine	4,136,000	9	306,060,000	24
Other species	4,874,000	11	768,345,000	60
Total	45,260,000	100	1,272,213,000	100

The above tabulation cannot be considered as an indication of the life span of the white pine industry in Latah County. As already mentioned, the past several years have seen a decided rise in the number of Clearwater County logs milled at Potlatch. The tributary volume in Clearwater County is sufficient to extend the operating life of the Potlatch mill for a number of years.

The following tabulation presents the average total volume per acre in the various types of sawlog stands.

All types	9,900	board	feet	per	acre	all	species
White pine type	15,200	"	"	"	"	"	"
Ponderosa pine type	9,100	"	"	"	"	"	"
Larch-Douglas fir & Douglas fir types	7,900	"	"	"	"	"	"
Other types	8,600	"	"	"	"	"	"

It is interesting to note that the white pine forests average only 7,300 board feet per acre of white pine and the ponderosa pine forests only 5,000 board feet per acre of ponderosa pine.

The sawlog volume in these merchantable stands is supplemented by an additional volume of 127 million board feet contained in scattered sawlog trees in immature stands.

This residual volume is the source of a considerable portion of the fuelwood.

The total net board foot volume figures given in this report are considerably higher than any previous estimates. They include, as already mentioned, the volumes in scattered trees on cutover and burned areas and the volumes in inaccessible and unloggable stands. Though the standards of tree merchantability set up for the Forest Survey compare closely with the actual utilization for such species as white pine, ponderosa pine and lodgepole pine, they include trees of smaller diameter than those usually cut in the case of the less valuable sawlog species such as hemlock and Douglas fir. As an example, the Forest Survey includes all sound hemlock trees larger than 13 inches in diameter breast high which have two logs to an eight inch top and are physically suitable for lumber, while private cruises seldom include hemlock trees of such small diameter and height.

Forest Ownership

One of the principal obstacles in the path of a united effort toward more desirable forest management lies in the type and diversity of ownership as shown in figure 3. The situation shown in this figure is made more difficult by the fact that the timber holdings in the various types of ownership are intermixed, and that private ownership consists of many individual landholders, making a patchwork of ownership that is both diverse and complex.

A second difficulty lies in the fact that with 64.8 percent of the total forest area and 76.1 percent of the volume in accessible sawlog stands privately owned, a too heavy tax burden plus other financial factors have for the most part prevented the private owner from considering little else but the immediate liquidation of his timber assets. Of the white pine volume, representing the chief timber value in the county, 75.7 percent is privately owned.

The value relationship is presented differently in the following tabulation which shows the proportion of sawlog area in each ownership class.

Ownership class	Total forest area (Acres)	Area of sawlog stands (Acres)	Percentage of sawlog area in total forest holdings.
Private	259,710	97,055	37
State	38,791	9,051	23
County	1,256	576	46
National Forest	99,934	21,535	22
Public Domain	729	199	27
Total all owners	400,420	128,416	32

Agricultural Development

In the ponderosa pine section of Latah County the logger has been followed by the farm settler who has cleared and cultivated the more desirable cutover lands. In this fashion many thousand acres of valuable farm land have been added to the original prairie section and the county has profited by this conversion to the extent of a larger community and increased income. However, by reason of soil

quality, topography and other factors, much of the forest land is unsuitable for anything except tree growth. In Latah County there has been a certain amount of farm settlement in areas such as these. Although minor when compared with the many profitable cutover-land farms, this ill advised minority represents--in disproportionately high governmental costs against revenues--a liability to the community as well as the individual farmers.

In this, as well as the other north Idaho counties, the past few years have been marked by a decided increase in farms and farm population, attributable to two factors. As the lumber industry has declined a number of workers have been obliged to find other sources of income. Some of these have turned to agriculture on cutover areas. This number has been augmented by the legion of farmers migrating from the drought areas of the Middle West. Between April 1930 and January 1935, according to the census, the number of farms in Latah County increased from 1,688 to 1,888. No figures are available for the three years elapsed since the later census, but it is reported that the increase has continued to the point where most of the available, developed farms are occupied. Inasmuch as some are of low value, it is questionable whether the entire rise in the number of operating farms will be permanent. The census indicates that there were 1,876 farms in 1920, with a subsequent drop of almost one-third to 1,286 in 1925.

The Forest Survey has classified 272,416 acres as cultivated,[3] 7,988 acres as stump land pasture and 11,770 acres as natural grassland. That the limits of a permanent agricultural expansion have been approximated is indicated by the following statement quoted from a recent publication by the Resettlement Administration.[4] "Practically all of the area which is now forest should continue to remain so. In general it is unsuitable for permanent agriculture....."

In addition to furnishing the timber products so necessary for agricultural development, the forests of Latah County have afforded outside employment for many farm operators. The 1935 census reports 74,086 man-days were spent by farm operators in work off their own farms during the preceding year. Undoubtedly a considerable share of this employment has been in forest enterprise.

Dependent Population

A true measure of the comparative importance of forest industry to the county as a community is best obtained in an analysis of employment and dependency. In 1925 it is estimated that logging, milling, forest protection and the other phases of forest enterprise furnished the equivalent of full time occupation for approximately 1,760 persons. Inasmuch as there is a varying amount of

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3/ See Glossary for definitions.
4/ "A Land Use Classification of Latah County, Idaho" by Carl Tjerandsen - Resettlement Administration Region XI.

part-time employment in the lumber industry, a year-by-year comparison can best be made on the basis of the workers who might have been employed, if the work had been shared by fewer workers on a full time basis. Using this measuring stick, it is estimated that the curtailed production of 1933 reduced employment to the equivalent of one or two hundred persons as compared to the 1,760 persons in 1925. There were employed in 1936 the equivalent of about 1,000 full time workers. A portion of the last number were engaged in emergency relief projects.

The dependency upon lumbering, agriculture, mining or any other primary industry, however, goes beyond the employees and their families. The larger part of the workers' income is spent in meeting the costs for food, clothing, medical care and other living expenses. Likewise, a large part of the production dollar is spent for supplies and equipment from the retail or wholesale distributor. The satisfying of these various needs is the function of almost one-third of the workers in the county. For this reason each basic industry supports indirectly a proportion of the workers in secondary industry in more or less direct relation to its own size and importance. On this basis, it is calculated that agriculture directly and indirectly supported 42 percent of the county population in 1925, and forest industry, 38 percent. The factor of greater unemployment confuses such a calculation for 1936. It is estimated, however, that

about 62 percent and 22 percent of the population, respectively, were directly and indirectly supported by agriculture and forest industry in that year. The ratio between farm and forest workers was approximately 11 to 10 in 1925 and 29 to 10 in 1936.

Sustained Yield Possibilities

The factors enumerated in the preceding pages in general represent the basic forest management problems of the Inland Empire. The equalization of taxes and other burdens weighing heavily upon the private owner, the correction of improper land use features and the development of other forest land uses, the unification of a diverse ownership picture by cooperation or other means, the improvement of markets for secondary species, and the continual strengthening of forest protection, are five primary objectives which must be attained before a completely desirable utilization of the forest resources is possible.

The definition of desirable forest utilization practice involves a consideration of public as well as individual interests, a consideration which includes more than the lumber industry. The forests of Latah County are part of a great mountainous forest area protecting the headwaters of the many tributaries of the mighty Columbia River. In this capacity the degree to which this forest cover functions is of paramount importance to all. Lacking lakeside attractions, Latah County does not have the outstanding

Fig 4

ACTUAL AND DESIRABLE DISTRIBUTION OF AGE CLASSES IN TIMBERLANDS ZONE ONE° — LATAH COUNTY, IDAHO 399,393 ACRES

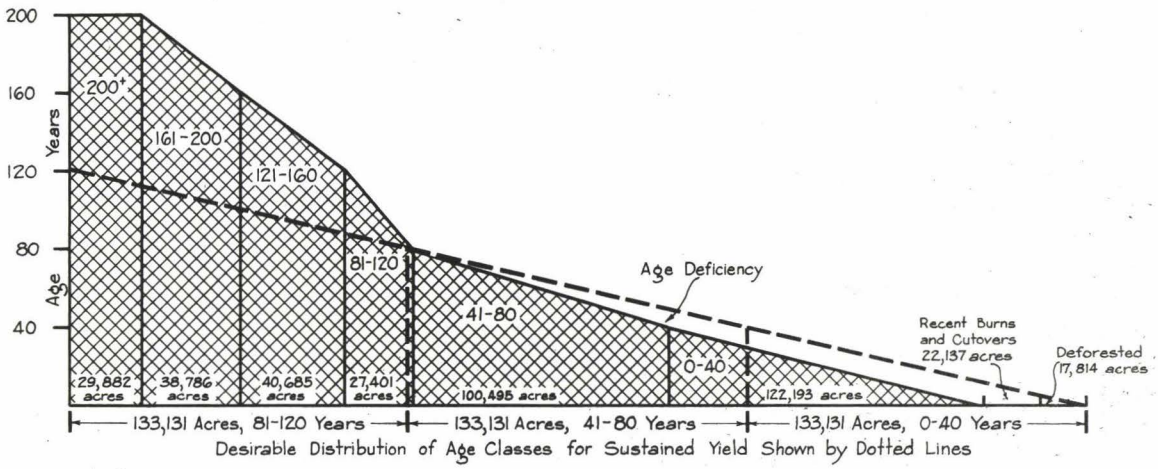


Fig 5

VOLUME IN TIMBER STANDS BY SPECIES LATAH COUNTY, IDAHO

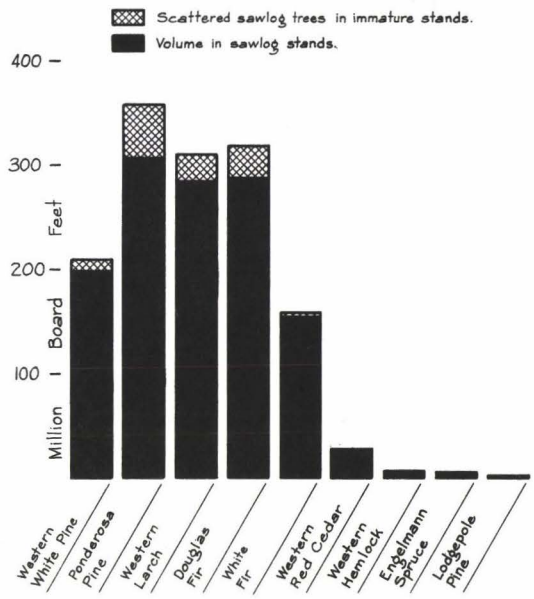
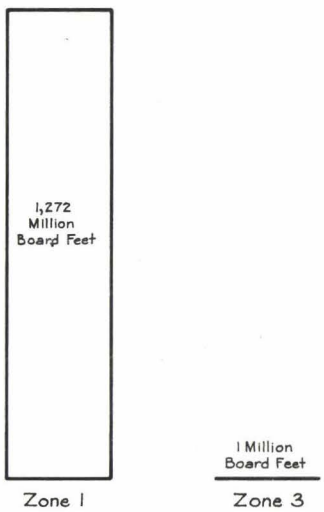


Fig 6

VOLUME IN SAWLOG STANDS BY ZONES° LATAH COUNTY, IDAHO



°NO ZONE TWO FOREST LAND IN LATAH COUNTY — FOR DEFINITION OF ZONES SEE GLOSSARY

recreational possibilities of several other north Idaho counties. Nevertheless, recreation here does offer a means of augmenting other forest revenue. Rural expansion has been favored in this region by the availability of fuelwood, fenceposts, etc. The farm woodlot and adjacent forest area should continue to be important sources of the timber products necessary for farm operation.

The forest stand situation in Latah County has two aspects. The original area of white pine timberland was considerably greater than at present. As the virgin stands have been removed, residual sawtimber stands have often been left, particularly in recent years with the concentration upon white pine and cedar poles. In these cases the Forest Survey Inventory reveals residual stands of merchantable age but undesirable composition. This partial logging and the young stands remaining on more completely utilized areas have resulted in the present fairly satisfactory distribution of age classes. In figure 4, all timber stands are plotted by age against the desirable stand distribution (shown by the dotted lines) for a 120-year rotation in which one one-hundred-twentieth of the area is to be clearcut each year. The presence of these advance stands on cutover areas would have allowed a more liberal management diagram with a larger area and volume cut annually, if a sustained yield program had been adopted early in the history of lumbering in this county. This could have been done and a 120-year

rotation still maintained. However, past overcutting necessitates the adoption of a less desirable sustained yield plan approaching that of figure 4. As mentioned previously, this is based on all timber stands. Little satisfaction can be derived from an analysis of the white pine situation alone as this species is rapidly being exhausted in the county.

The question naturally arises--how much of a lumber industry can be supported on a sustained yield basis by the forests of Latah County alone? Logging mainly white pine, the answer is, an extremely small one. However, it seems reasonable to think that the secondary species will someday achieve a much higher value; but even completely utilizing all species, a permanently maintained log production must be at a lower rate than during the past years. To the extent which this locality continues as the manufacturing center of the tributary timberlands in Clearwater County, it will be possible to maintain a larger local manufacturing industry than could be supported by the forests of Latah County alone. Regardless of the size of the forest industry in years to come, its net value will be measured by its permanence and stability which are, in turn, coupled to the forest management policies to be adopted in the future.

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Designed to meet the many and varied needs for information, a wealth of data is at hand for each county. In this publication, it has been necessary to sacrifice some of the detail to brevity, and consequently the information herein is generalized into the more important classifications. Subsequent reports for the economic unit, of which Latah County is a part, will cover the material in more detail, going much farther than this preliminary analysis in making interpretations based on various economic considerations.

To facilitate the most intelligent use of the tables in this publication, the methods followed and the types, terms and classifications used in collecting and presenting these data are described in a supplementary report.5/ Brief definitions of the more important of these are contained in the glossary.

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The figures in this report are preliminary and subject to correction in future releases.

5/ Forest Survey Release No. 3. The Inventory Phase of the Forest Survey for the Northern Rocky Mountain Region - A Definition of the Procedure, Terms, and Classifications.

INVENTORY PHASE -- LATAH COUNTY, IDAHO

G. M. DeJarnette and P. D. Kemp, in Charge

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Table 2.- CLASSIFICATION OF FOREST LAND TYPES ACCORDING TO OWNERSHIP, ZONE AND SIZE CLASS
LATAH COUNTY, IDAHO

Area in Acres

(Continued on next page.)

Timber type	Zone[1]	Private					State[2]					County				
		Sawlog	Pole	Seedling and Sapling	Recent burns & cutovers	Total	Sawlog	Pole	Seedling and Sapling	Recent burns & cutovers	Total	Sawlog	Pole	Seedling and Sapling	Recent burns & cutovers	Total
Western white pine	1	17,937	19,670	11,459	6,937	56,003	3,577	6,274	8,780	1,208	19,839	27		212	48	287
	3		142			142							24			24
	Total	17,937	19,812	11,459	6,937	56,145	3,577	6,274	8,780	1,208	19,839	27	24	212	48	311
Ponderosa pine-pure	1	1,841	10,774	475		13,090	608	325			933					
Ponderosa pine-mixed	1	45,017	52,699	13,938	2,844	114,498	2,148	1,804	889		4,841	349				349
Ponderosa pine Total	1	46,858	63,473	14,413	2,844	127,588	2,756	2,129	889		5,774	349				349
Larch-Douglas fir	1	26,604	20,794	5,793	3,968	57,159	2,272	3,533	1,582	313	7,700	113	41	166	109	429
	3	65				65										
	Total	26,669	20,794	5,793	3,968	57,224	2,272	3,533	1,582	313	7,700	113	41	166	109	429
Hemlock-white fir	1	3,164		37		3,201	80				80					
Douglas fir	1	153	928	617		1,698	49		122		171			44		44
Lodgepole pine	1		1,609	770		2,379		1,125	67		1,192					
Western red cedar[3]	1	35				35										
Cedar-white fir[3]	1	2,239	261	906		3,406	317		66		383	87				87
Total Producing Timberland	1	96,990	106,735	33,995	13,749	251,469	9,051	13,061	11,506	1,521	35,139	576	41	422	157	1,196
	3	65	142			207							24			24
	Total	97,055	106,877	33,995	13,749	251,676	9,051	13,061	11,506	1,521	35,139	576	65	422	157	1,220
Nonrestocked old burns and cutovers	1					7,815					3,652					36
Total Timberland	1					259,284					38,791					1,232
	3					207										24
	Total					259,491					38,791					1,256
Rocky Noncommercial	1					219										
GROSS FOREST AREA	1					259,503					38,791					1,232
	3					207										24
	Total					259,710					38,791					1,256

1/ No zone 2 forest land in Latah County.
2/ Available for conversion.
3/ In this table merchantable cedar and cedar-white fir pole stands are classed with sawlog stands.

Data as of January 1, 1938.

RE-NRM
Forest Survey

Table 2. - CLASSIFICATION OF FOREST LAND TYPES ACCORDING TO OWNERSHIP, ZONE AND SIZE CLASS
LATAH COUNTY, IDAHO

Area in Acres

(Continued from preceding page)

Timber type	Zone[1]	National Forest[2]					Public Domain					Total				
		Sawlog	Pole	Seedling and Sapling	Recent burns and cutovers	Total	Sawlog	Pole	Seedling and Sapling	Recent burns and cutovers	Total	Sawlog	Pole	Seedling and sapling	Recent burns and cutovers	Total
Western white pine	1	4,051	24,160	28,369	6,561	63,141				51	51	25,592	50,104	48,820	14,805	139,321
	3		521			521							687			687
	Total	4,051	24,681	28,369	6,561	63,662				51	51	25,592	50,791	48,820	14,805	140,008
Ponderosa pine-pure	1	51				51		20			20	2,500	11,119	475		14,094
Ponderosa pine-mixed	1	3,220	1,287	1,239		5,746	145	244	20		409	50,879	56,034	16,086	2,844	125,843
Ponderosa pine Total	1	3,271	1,287	1,239		5,797	145	264	20		429	53,379	67,153	16,561	2,844	139,937
Larch-Douglas fir	1	9,280	6,070	1,696		17,046	54	116	64		234	38,323	30,554	9,301	4,390	82,568
	3											65				65
	Total	9,280	6,070	1,696		17,046	54	116	64		234	38,388	30,554	9,301	4,390	82,633
Hemlock-white fir	1	110		48		158						3,354		85		3,439
Douglas fir	1	96				96						298	928	783		2,009
Lodgepole pine	1		183	264		447							2,917	1,101		4,018
Western red cedar[3]	1											35				35
Cedar-white fir[3]	1	4,727	1,484	67	98	6,376						7,370	1,745	1,039	98	10,252
Total Producing Timberland	1	21,535	33,184	31,683	6,659	93,061	199	380	84	51	714	128,351	153,401	77,690	22,137	381,579
	3		521			521						65	687			752
	Total	21,535	33,705	31,683	6,659	93,582	199	380	84	51	714	128,416	154,088	77,690	22,137	382,331
Nonrestocked old burns and cutovers	1					6,296					15					17,814
Total Timberland	1					99,357					729					399,393
	3					521										752
	Total					99,878					729					400,145
Rocky Noncommercial	1					56										275
GROSS FOREST AREA	1					99,413					729					399,668
	3					521										752
	Total					99,934					729					400,420

1/ No zone 2 forest land in Latah County.
2/ Available for conversion.
3/ In this table merchantable cedar and cedar-white fir pole stands are classed with sawlog stands.

Data as of January 1, 1938.

RE-NRM
Forest Survey

Table 3. - TOTAL VOLUME OF SAWTIMBER BY TYPE OF STAND, SPECIES, AND OWNERSHIP
LATAH COUNTY, IDAHO

Ownership class	Volume by species - thousand board feet net log scale (Scribner Dec. C)										Pieces Cedar poles
	Western white pine	Ponderosa pine	Western larch	Douglas fir	White fir	Western red cedar	Western hemlock	Engelmann spruce	Lodgepole pine	Total	
	Sawlog Stands 1/ (all zones)										
Private	149,919	261,947	208,277	216,773	108,045	14,814	2,476	4,789	2,585	969,625	146,480
State	24,627	19,708	18,863	20,161	8,912	1,666	484	339		94,760	9,174
County	45	2,231	1,327	1,561	634	105	17			5,920	
National Forest	23,316	21,142	56,026	49,193	37,258	9,472	3,797	778	86	201,068	18,817
Public Domain		1,032	286	541	64	29				1,952	47
Total	197,907	306,060	284,779	288,229	154,913	26,086	6,774	5,906	2,671	1,273,325	174,518
	Scattered Sawlog Trees in Immature Stands (all zones)										
Private	5,303	49,620	15,232	24,100	3,050	77		6	4	97,392	
State	3,077	1,340	6,726	3,901	302				328	15,674	
County			151	277						428	
National Forest	3,922	1,635	4,466	2,249	596	12			47	12,927	
Public Domain		499	22	118						639	
Total	12,302	53,094	26,597	30,645	3,948	89		6	379	127,060	
Grand Total	210,209	359,154	311,376	318,874	158,861	26,175	6,774	5,912	3,050	1,400,385	174,518

1/ Includes the volume in cedar and cedar-white fir merchantable pole stands. Data as of January 1, 1938.

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Forest Survey

Table 4. - VOLUME OF SAWTIMBER IN SAWLOG STANDS[1] BY ZONE, OWNERSHIP AND SPECIES
LATAH COUNTY, IDAHO

Ownership class	Volume by species - thousand board feet net log scale (Scribner Dec. C)										Pieces
	Western white pine	Ponderosa pine	Western larch	Douglas fir	White fir	Western red cedar	Western hemlock	Engelmann spruce	Lodgepole pine	Total	Cedar Poles
	Zone 1										
Private	149,820	261,947	207,874	216,329	107,970	14,723	2,476	4,789	2,585	968,513	146,480
State	24,627	19,708	18,863	20,161	8,912	1,666	484	339		94,760	9,174
County	45	2,231	1,327	1,561	634	105	17			5,920	
National Forest	23,316	21,142	56,026	49,193	37,258	9,472	3,797	778	86	201,068	18,817
Public Domain		1,032	286	541	64	29				1,952	47
Total	197,808	306,060	284,376	287,785	154,838	25,995	6,774	5,906	2,671	1,272,213	174,518
	Zone 3 [2]										
Private	99		403	444	75	91				1,112	
Grand Total	197,907	306,060	284,779	288,229	154,913	26,086	6,774	5,906	2,671	1,273,325	174,518

1/ Includes volume in cedar and cedar-white fir merchantable pole stands. Data as of January 1, 1938.
2/ No Zone 2 forest land in Latah County.

RE-NRM
Forest Survey

Table 5. - VOLUME OF SAWTIMBER IN SAWLOG STANDS BY TYPE, ZONE AND SPECIES
LATAH COUNTY, IDAHO

Timber type	Volume by species - thousand board feet net log scale (Scribner Dec. C)										Pieces
	Western white pine	Ponderosa pine	Western larch	Douglas fir	White fir	Western red cedar	Western hemlock	Engelmann spruce	Lodgepole pine	Total	Cedar Poles
Zone 1											
White pine	185,618	19,296	66,971	53,534	49,310	8,850	1,787	2,669	253	388,288	123,785
Ponderosa pine-pure	43	17,223	1,605	2,980	136	22				22,009	545
Ponderosa pine-mixed	3,064	252,048	78,954	102,520	21,316	2,105	1,132	328	2,335	463,802	21,325
Larch-Douglas fir	8,791	16,535	121,302	109,072	40,706	4,021	351	2,162	83	303,023	23,971
Hemlock-white fir	36	787	4,436	6,454	13,037	245	108	355		25,458	1,542
Douglas fir	151	171	210	1,478	260	52				2,322	1,575
Western red cedar 1/			35	70		105				210	
Cedar-white fir 1/	105		10,863	11,677	30,073	10,595	3,396	392		67,101	1,775
Total	197,808	306,060	284,376	287,785	154,838	25,995	6,774	5,906	2,671	1,272,213	174,518
Zone 3 2/											
Larch-Douglas fir	99		403	444	75	91				1,112	
Grand Total	197,907	306,060	284,779	288,229	154,913	26,086	6,774	5,906	2,671	1,273,325	174,518

1/ Includes volume in merchantable pole stands.
2/ No zone 2 forest land in Latah County

Data as of January 1, 1938.

Table 6.
CLASSIFICATION OF NONSAWLOG IMMATURE TIMBER TYPES ACCORDING TO DENSITY OF STOCKING
LATAH COUNTY, IDAHO

Timber Type	Pole							
	Well Stocked		Medium Stocked		Poorly Stocked		Total	
	Acres	%	Acres	%	Acres	%	Acres	%
Western white pine	45,105	89	5,072	10	614	1	50,791	100
Ponderosa pine-pure	8,863	80	2,070	18	186	2	11,119	100
Ponderosa pine-mixed	39,590	71	12,151	21	4,293	8	56,034	100
Larch-Douglas fir	21,535	71	6,534	21	2,485	8	30,554	100
Douglas fir	928	100					928	100
Lodgepole pine	866	29	1,589	55	462	16	2,917	100
Cedar-white fir	404	23	517	30	824	47	1,745	100
Total	117,291	76	27,933	18	8,864	6	154,088	100

Timber Type	Seedling and Sapling							
	Well Stocked		Medium Stocked		Poorly Stocked		Total	
	Acres	%	Acres	%	Acres	%	Acres	%
Western white pine	18,522	38	17,808	36	12,490	26	48,820	100
Ponderosa pine-pure	325	68			150	32	475	100
Ponderosa pine-mixed	7,433	46	5,990	37	2,663	17	16,086	100
Larch-Douglas fir	4,744	51	2,526	27	2,031	22	9,301	100
Hemlock-white fir			85	100			85	100
Douglas fir	783	100					783	100
Lodgepole pine	655	60			446	40	1,101	100
Cedar-white fir	674	65	365	35			1,039	100
Total	33,136	43	26,774	35	17,780	22	77,690	100

Timber Type	Total Pole, Seedling and Sapling							
	Well Stocked		Medium Stocked		Poorly Stocked		Total	
	Acres	%	Acres	%	Acres	%	Acres	%
Western white pine	63,627	64	22,880	23	13,104	13	99,611	100
Ponderosa pine-pure	9,188	79	2,070	18	336	3	11,594	100
Ponderosa pine-mixed	47,023	65	18,141	25	6,956	10	72,120	100
Larch-Douglas fir	26,279	66	9,060	23	4,516	11	39,855	100
Hemlock-white fir			85	100			85	100
Douglas fir	1,711	100					1,711	100
Lodgepole pine	1,521	38	1,589	39	908	23	4,018	100
Cedar-white fir	1,078	39	882	32	824	29	2,784	100
Total	150,427	65	54,707	24	26,644	11	231,778	100

Data as of January 1, 1938

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Table 7. - CLASSIFICATION OF STOCKED TIMBERLANDS ACCORDING TO TYPE AND SITE QUALITY
LATAH COUNTY, IDAHO
Area in Acres

Timber type	Site number					Total area	Average site
	I	II	III	IV	V		
Western white pine	19,013	74,690	30,715	785		125,203	II
Ponderosa pine-pure		265	11,080	2,749		14,094	III
Ponderosa pine-mixed	217	2,386	79,921	39,791	684	122,999	III & IV
Larch-Douglas fir	342	11,782	60,380	5,110	629	78,243	III
Hemlock-white fir	735	2,578	126			3,439	II
Douglas fir			1,149	860		2,009	III & IV
Lodgepole pine			3,476	542		4,018	III
Western red cedar				35		35	IV
Cedar-white fir	158	7,794	2,202			10,154	II
Total	20,465	99,495	189,049	49,872	1,313	360,194	

Data as of January 1, 1938

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Forest Survey

Table 8. - CLASSIFICATION OF STOCKED TIMBERLANDS ACCORDING TO TYPE AND AGE CLASS
ZONE ONE 1/
LATAH COUNTY, IDAHO
Area in Acres

Timber type	Age class - years						Total
	0-40	41 -80	81-120	121-160	161-200	200+	
Western white pine	70,150	28,427	1,059	10,242	12,853	1,785	124,516
Ponderosa pine-pure	4,225	7,523	463	291	531	1,061	14,094
Ponderosa pine-mixed	26,774	41,639	15,350	9,207	16,525	13,504	122,999
Larch-Douglas fir	17,257	18,199	8,871	18,991	7,249	7,611	78,178
Hemlock-white fir	85		860	1,543	793	158	3,439
Douglas fir	783	928		126	77	95	2,009
Lodgepole pine	1,880	2,034	104				4,018
Western red cedar				35			35
Cedar-white fir	1,039	1,745	694	250	758	5,668	10,154
Total	122,193	100,495	27,401	40,685	38,786	29,882	359,442

1/ No zone 2 forest land in Latah County

Data as of January 1, 1938

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Table 9 AVERAGE ANNUAL CUTTING DEPLETION FROM THE GREEN TIMBER RESOURCES BY TREE SIZE, SPECIES AND PRODUCTS
LATAH COUNTY, IDAHO

Product	White pine	Ponderosa pine	Larch	Douglas fir	White fir	Cedar	Hemlock	Engelmann spruce	Lodgepole pine	Cottonwood	Total
From trees of sawtimber size (thousand board feet, Scribner Dec. C, log scale)											
Sawlogs 1/	30,235	12,082	6,283	5,490	4,882	1,285		568	8	3	60,836
Fuelwood 2/		5,227	1,422	5,236			1,175				13,060
Fence Posts 2/						409					409
Pulpwood 3/					417						417
Total	30,235	17,309	7,705	10,726	5,299	1,694	1,175	568	8	3	74,722
From trees of less than sawtimber size (cubic feet)											
Fuelwood 2/		47,386	61,146	225,148							333,680
Fence Posts 2/			25,661	14,753		9,810					50,224
Poles 4/						208,319					208,319
Total		47,386	86,807	239,901		218,129					592,223

1/ 1925-1936 inclusive.
2/ From a special survey in 1935.
3/ 1927-1934 inclusive.
4/ 1927-1929-1931-1933.

Glossary

NONFOREST LAND TYPES

Townsites - includes both incorporated and unincorporated urban settlements.

Cultivated - areas cleared and/or cultivated for agricultural use, including pasture.

Stump pasture - logged off or burned off lands, part of operating farm units, now chiefly devoted to grazing and from which stumps or snags have not been removed.

Barrens - areas too rocky, too scanty as to soil, or too exposed, to support a vegetative cover of either trees, shrubs, or herbs.

Grass - areas such as parks, mountain meadows, or treeless ridges, whose principal vegetation is grass and herbs.

Brush - areas whose principal vegetation is sagebrush, brush, or shrubs as a permanent type.

FOREST LAND TYPES

Timberland - forest areas capable of producing trees of commercial species and quality.

Producing timberland - timberland areas containing forest growth, or if not, which have been denuded since 1925.

Deforested timberland - nonrestocked old burns or cut-overs denuded prior to 1925.

Subalpine - stands above the altitude range of merchantability.

Rocky noncommercial - areas too steep, sterile, or rocky to produce merchantable timber.

Sawlog stands - timber stands containing 3 thousand board feet per acre for the ponderosa pine and lodgepole pine types or 4 thousand board feet for the other types, except cottonwood, in trees of sawlog size. The cottonwood type has no minimum limit. The minimum size classes for sawlog trees are: white pine, ponderosa pine, lodgepole pine - 12 inches, cedar - 24 inches, and other species - 14 inches (diameter breast high).

Merchantable pole stands - cedar or cedar-white fir stands containing 8 or more commercial cedar poles to the acre (12 to 24 inches diameter breast high).

Other pole stands - timber stands in which the majority of the dominant trees are between 6 inches and merchantable size.

Seedling or sapling stands - timber stands in which the majority of the dominant trees are less than 6 inches.

Recent burns and cut-overs - areas cut or burned since 1925 for which sufficient time has not elapsed to allow classification into one of the other timber types.

Reserved areas - includes publicly owned forest lands not available for conversion into timber products but reserved for parks, primitive areas, protection of municipal watersheds, etc.

Zones - Zone One includes areas loggable under present conditions.

Zone Two includes areas loggable with increased stumpage values.

Zone Three includes areas of no probable value for timber production.

Site class - the index of the productivity of an area for growing forests. There are 5 or 6 site classes with the best sites numbered one, the next best two, etc.

Stocking - in young timber stands stocking is the measure of the extent to which an area is covered with forest growth. The degrees of stocking are:

Less than 10 percent stocked	= unstocked
10 to 39 percent stocked	= poorly stocked
40 to 69 percent stocked	= medium stocked
70 to 100 percent stocked	= well stocked